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Datasheet for the decision of 16 July 2019

Case Number: T 0710/16 - 3.3.10

Application Number: 02749536.5

Publication Number: 1399112

IPC: A61K8/22, A61K8/34, A61K8/81, A61Q5/08

Language of the proceedings: EN

Title of invention:
Compositions comprising a cationic homopolymer and their use for stabilization of an oxidizing solution

Patent Proprietor:
L'OREAL S.A.

Opponent:
Kao Germany GmbH

Headword:
Compositions comprising a cationic homopolymer / L'OREAL

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - (no)

Decisions cited:
T 0197/86, T 0181/82

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

Boards of Appeal

Chambres de recours

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Case Number: T 0710/16 - 3.3.10

D E C I S I O N
of Technical Board of Appeal 3.3.10
of 16 July 2019

Appellant: (Patent Proprietor)	L'OREAL S.A. 14, rue Royale 75008 Paris Cedex (FR)
Representative:	L'Oreal Service D.I.P.I. 9, rue Pierre Dreyfus 92110 Clichy (FR)
Respondent: (Opponent)	Kao Germany GmbH Pfungstädter Strasse 92-100 64297 Darmstadt (DE)
Representative:	Grit, Mustafa Kao Germany GmbH Pfungstädterstrasse 92-100 64297 Darmstadt (DE)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 13 January 2016 revoking European patent No. 1399112 pursuant to Article 101(3)(b) EPC.**

Composition of the Board:

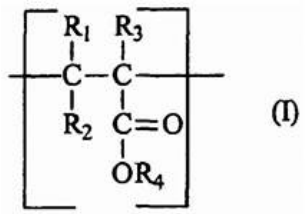
Chairman	M. Kollmannsberger
Members:	J.-C. Schmid
	F. Blumer

Summary of Facts and Submissions

I. The Appellant (Proprietor of the patent) lodged an appeal against the decision of the Opposition Division revoking European patent No. 1 399 112, independent claim 1 thereof reading as follows:

"1. A oxidizing composition comprising:

(a) at least one cationic homopolymer comprising repeating units of formula (I):



(I)

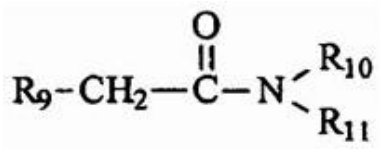
wherein:

- R_1, R_2 and R_3, which may be identical or different, are each chosen from H, alkyl groups, and alkenyl groups; and
- R_4 is chosen from groups comprising at least one quaternary amino group:

(b) at least one fatty alcohol comprising at least 8 carbon atoms;

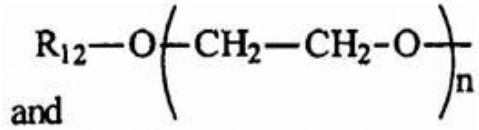
(c) at least one alkoxylated fatty alcohol comprising at least 8 carbon atoms;

(d) at least one fatty amide chosen from fatty amides of formula

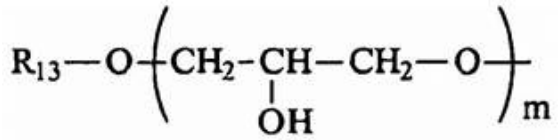


wherein:

- R_9 is chosen from linear alkyl groups comprising at least 4 carbon atoms, branched alkyl groups comprising at least 4 carbon atoms, and cyclic alkyl groups comprising at least 4 carbon atoms; linear alkenyl groups comprising at least 4 carbon atoms, branched alkenyl groups comprising at least 4 carbon atoms, and cyclic alkenyl groups comprising at least 4 carbon atoms; wherein said alkyl and alkenyl groups are unsubstituted or are substituted with oxygen atoms, nitrogen atoms, hydroxyl groups, ether groups, oxyalkylene groups, polyoxyalkylene groups, carboxylic acid groups, amine groups, amide groups, halogen containing groups, ester groups, siloxane groups or polysiloxane groups; and alkoxylated alkyl groups of formula:



and



wherein:

- R_{12} and R_{13}, which may be identical or different, are each chosen from linear alkyl groups comprising at least 4 carbon atoms, branched alkyl groups comprising at least 4 carbon atoms, and cyclic alkyl groups comprising at least 4 carbon atoms; and linear alkenyl groups composing at least 4 carbon atoms, branched alkenyl groups comprising at least 4 carbon atoms, and

cyclic alkenyl groups comprising at least 4 carbon atoms; wherein said alkyl and alkenyl groups are unsubstituted or are substituted with oxygen atoms, nitrogen atoms, hydroxyl groups, ether groups, oxyalkylene groups, polyoxyalkylene groups, carboxylic acid groups, amine groups, amide groups, halogen containing groups, ester groups, siloxane groups or polysiloxane groups;
- n ranges from 1 to 10; and
- m ranges from 1 to 6; and
- R_{10} and R_{11}, which may be identical or different, are each chosen from H; linear alkyl groups, branched alkyl groups and cyclic alkyl groups; and linear alkenyl groups, branched alkenyl groups and cyclic alkenyl groups; wherein said alkyl and alkenyl groups are unsubstituted or are substituted with oxygen atoms, nitrogen atoms, hydroxyl groups, ether groups, oxyalkylene groups, polyoxyalkylene groups, carboxylic acid groups, amine groups, amide groups, halogen containing groups, ester groups, siloxane groups or polysiloxane groups; and

(e) at least one oxidizing agent."

II. The opponent (respondent) requested in its notice of opposition the revocation of the patent-in-suit in its entirety on the grounds of lack of novelty and inventive step (Article 100(a) EPC). Inter alia the following documents were cited in the opposition proceedings:

(1) Clairol Nice'n easy, 266 Black Permanent Color, from Bristol-Myers Squib, Singapur (published October 1999)
(2) Grey chic, 10 Sheer Crystal, from L'Oreal, Great-Britain (published May 2000) and

(3) US-A-5 972 322.

According to the opposition division the subject-matter of the claims was novel over document (1). With respect to inventive step, the opposition division considered that document (2) represented the closest prior art to the invention. The claimed composition differed from the composition of document (2) due to the presence of a cationic homopolymer. There was no composition reflecting document (2) in the comparative test submitted on 2 October 2015 (document (7)). Therefore, the technical problem could only be regarded as the provision of an alternative oxidising composition. Polyquaternium-37, which was a homopolymer having the repeating unit of formula (I) was a known thickening agent used in haircare formulations. Document (1) disclosed a commercially available stable developer composition comprising Polyquaternium-37 and hydrogen peroxide. Adding Polyquaternium-37 to an oxidising composition was therefore obvious in the light of document (1). Consequently, the subject-matter of the claim 1 of the patent as granted lacked an inventive step. Furthermore, the subject-matter of auxiliary request 1 and 3 lacked an inventive step for the same reasons as for the maim request, whereas auxiliary request 2 lacked clarity and therefore did not meet the requirement of Article 84 EPC.

III. With the statement of the grounds of appeal, the appellant filed a new experimental report (document (8)) and auxiliary requests 1 to 5. According to the appellant, with respect to inventive step, document (2) represented the closest prior to the invention. The composition of document (2) differed from the composition of claim 1 of the patent as granted due to the absence of the cationic homopolymer (a). According

to the established case law, it was possible to modify the closest prior art in order to assess the distinctive characteristic of an invention. In the present case, a cationic polymer different from that of the invention was added for obtaining similar consistency in order to demonstrate that the nature of the polymer only influences the resolution of the technical problem, namely the stability of the composition. Document (8) showed that the cationic homopolymer (a) according to the invention improved the stability of the oxidizing composition. The skilled person would not turn to document (3) which relates to conditioning compositions not containing an oxidising agent, such as shampoos or styling compositions. Document (1) only described a particular oxidising composition comprising Polyquatermium-37. Document (1) did not suggest using Polyquaternium-37 in order to improve the physical stability of an oxidizing composition. Thus, starting from document (2), in the light of the teaching of document (1), the skilled person had no reason to add Polyquatermium-37 to an oxidising composition in order to improve its physical stability. Therefore, the subject matter of claim 1 of the patent as granted involved an inventive step.

The subject matter of claim 1 of auxiliary request 1 to 5 involved an inventive step for the same reasons as those explained for the main request.

IV. According to the Respondent, document (2) was the closest prior art to the invention. It disclosed a market product of a hair dyeing kit which comprises a crème developer (oxidizing composition) and crème conditioner. As a market product sold by the appellant, it was physically stable. The oxidizing composition disclosed in document (2) comprised a fatty alcohol,

namely cetearyl alcohol, an ethoxylated fatty alcohol, namely Ceteareth-30, a fatty amide according to the structure as required by claim 1 of the patent in suit, namely trideceth-2 carboxamide MEA, and an oxidizer, namely hydrogen peroxide. The claimed composition differed from the composition disclosed in document (2) only due to the presence of a cationic homopolymer (component (a)). The comparative composition in document (8) comprised Polyquaternium-32 and thus did not reflect the closest prior art document (2). Therefore, the test report of document (8) could not prove any technical effect over the stable market product disclosed in document (2) and should be disregarded when formulating the objective technical problem. Consequently, the objective technical problem over the state of the art was to be seen in the provision of an alternative composition. Documents (1) and (3) related to the addition of a conditioning thickener into cosmetic compositions. The developer composition disclosed in document (1) comprised Polyquaternium-37 as a thickening agent and according to document (3), Polyquatemium-37 was a universal thickener which also conditioned the hair. Thus, the skilled person seeking alternative stable compositions has no technical prejudice to add Polyquaternium-37 into oxidizing compositions. Adding Polyquaternium-37 to an oxidizing composition was a simple choice among thickening and conditioning polymers which the skilled person had at its disposal. The solution of adding Polyquaternium-37 to the oxidizing composition was obvious in light of documents (1) and (3). Thus, claim 1 of the main request lacked an inventive step. The argument for lack of inventive step of the amended claims of auxiliary request 1 to 5 over document (2) in combination with document (1) or (3) remained the same as for the main request.

V. In the communication dated 22 February 2019, the Board observed that composition E of the test report of document (8) did not reflect the oxidising composition according to document (2), with the consequence that document (8) could not show that a composition of the patent-in-suit had improved stability with respect to the oxidising composition disclosed in document (2). Composition E, contrary to the oxidizing composition of document (2), did not contain any chelating agents in order to prevent catalytic decomposition of hydrogen peroxide. Accordingly, the data provided in document (8) did not exclude that the observed lack of stability of composition E was due to metal contaminants present in Polyquaternium-32, rather than to the polymer itself. Accordingly, the technical problem had to be reformulated into the provision of an alternative oxidising composition.

VI. With a letter dated 2 July 2019, the appellant withdrew its request for oral proceedings and informed the Board that it would not attend the oral proceeding scheduled for 16 July 2019.

VII. With a letter dated 8 July 2019, the respondent informed the Board that it would not attend the oral proceeding scheduled for 16 July 2019 and that the request for oral hearing was withdrawn.

VIII. The appellant requested that the decision under appeal be set aside and that the patent be maintained as granted (main request), or alternatively, that the patent be maintained on the basis of any one of auxiliary requests 1 to 5 filed with the statement setting out the grounds of appeal dated 23 May 2016.

The respondent requested that the appeal be dismissed.

IX. At the end of the oral proceedings held on 16 July 2019 in the absence of the parties, the decision of the Board was announced.

Reasons for the Decision

1. The appeal is admissible.

Inventive step

Main request: claim 1 of the patent as granted

2. Closest prior art

The present patent relates to oxidising compositions which are used in the treatment of keratinous fibres, such as hair dyeing (see paragraph [0009]) and aims to provide physically stable oxidizing compositions.

Document (2) discloses a kit for colouring hair comprising a cream colorant, a cream developer and a conditioning cream. The cream developer is an oxidizing composition comprising a fatty alcohol (cetearyl alcohol), an ethoxylated fatty alcohol (Ceteareth-30), a fatty amide as required by claim 1 of the patent as granted (trideceth-2 carboxamide MEA), and an oxidizing agent (hydrogen peroxide).

The Board considers, in agreement with the opposition division and the parties, that document (2) represents the closest state of the art to the invention, and

hence, takes it as the starting point in the assessment of inventive step.

3. *Technical problem*

According to the appellant, the problem underlying the patent-in-suit was to improve the physical stability of the oxidizing composition.

4. *Solution*

The solution proposed by the patent-in-suit is the oxidizing composition of claim 1 characterized by the presence of a cationic homopolymer comprising repeating units of formula (I) (component (a)).

5. *Success*

In the statement setting out the grounds of appeal the appellant referred to document (8) in order to show that this problem was solved by the the composition of claim 1 of the main request.

However, composition E used in the comparative report of document (8) does not reflect the oxidizing composition of the closest prior art document (2), since *inter alia* it does not contain the chelating agents present in the oxidizing composition of document (2) which prevent the catalytic decomposition of hydrogen peroxide. Furthermore composition E comprises Polyquaternium-32, which is not present in the oxidizing composition of document (2). It can even not be excluded that the observed lack of stability of comparative composition E in document (8) is due to metal contaminants present in Polyquaternium-32, rather than to the polymer itself.

The Appellant argued that according to the established case law, for example T 197/86, it was possible to modify the closest prior art in order to assess the distinctive characteristic of an invention.

However, the headnote of the decision T 197/86 (OJ EPO 1989, 371) reads:

"In the case where comparative tests are chosen to demonstrate an inventive step with an improved effect over a claimed area, the nature of the comparison with the closest state of the art must be such that the effect is convincingly shown to have its origin in the distinguishing feature of the invention. For this purpose it may be necessary to modify the elements of comparison so that they differ only by such a distinguishing feature (supplementing T 181/82, "Spiro compounds", OJ EPO 1984, 401) (cf. point 6.1.3 of the Reasons). Thus, according to point 6.1.3 of the Reasons of decision T 197/86, new **variants <u>of the closest state of the art</u>** may be prepared for making appropriate comparisons, in order to have a **variant** lying closer to the invention so that the advantageous effect can be attributable to the distinguishing features of the invention.

In the present case, composition E of document (8) does not reflect an oxidizing composition according to document (2) (see above point 5), with the consequence that document (8) cannot show that a composition of the patent-in-suit has improved stability with respect to the oxidizing composition described in document (2). The appellant's argument must therefore be rejected.

6. Reformulation of the technical problem

Since the alleged improvement lacks the required experimental support, the technical problem as defined by the appellant at point 3 above must be reformulated into the provision of an alternative stable oxidizing composition.

7. Obviousness

Polyquaternium-37 is a homopolymer comprising repeating units of formula (I) according to component (a) of the claimed composition. Polyquaternium-37 is a known conditioning and thickening agent used in haircare compositions (see column 6 of document (3)) It is also a component of the conditioning cream of document (2). Document (1) teaches that Polyquarternium-37 is also suitable in oxidizing compositions, since it is comprised in the oxidising composition of the kit for colouring hair disclosed in document (1), which in absence of any proof to the contrary, is deemed to be stable.

The skilled man faced with the problem of providing an alternative stable oxidizing composition to that of document (2) would therefore contemplate adding Polyquaternium-37 into this oxidizing composition. The skilled person thus would arrive at the subject-matter of claim 1 without the exercise of inventive skill.

Hence, the subject-matter of claim 1 of the main request lacks an inventive step.

Auxiliary requests 1 to 5

8. According to the appellant the subject-matter of claim 1 of these auxiliary requests involves an inventive step for the same reasons as for the main request.

Consequently, since the subject-matter of claim 1 of the main request lacks an inventive step, this conclusion also applies for the subject-matter of claim 1 of auxiliary requests 1 to 5.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

C. Rodríguez Rodríguez M. Kollmannsberger

Decision electronically authenticated